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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,969	09/09/2003	Michal Hlavac	INGEENI-1	4000
<div>7590 10/31/2007</div> <div>Mark J. Pandiscio Pandiscio &amp; Pandiscio, P.C. 470 Totten Pond Road Waltham, MA 02451-1914</div> <div>EXAMINER HAJNIK, DANIEL F</div> <div>ART UNIT 2628 PAPER NUMBER</div> <div>MAIL DATE 10/31/2007 DELIVERY MODE PAPER</div>				

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/658,969

Applicant(s)

HLAVAC ET AL.

Examiner

Daniel F. Hajnik

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 3-6 and 8-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-6 and 8-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fogel et al. (US Patent 7,025,675 B2) in view of Matsuda (US Patent 6,820,112).

As per claim 8, Fogel teaches the claimed:

1. A system (*col 3, lines 23-24, "a video game system 100"*) for presenting a virtual world to a user, the system comprising:

a virtual environment (*col 2, lines 22-24, "end users can interact with the virtual and perpetual gaming world in a remote manner"*);

a plurality of virtual elements within said virtual environment, each of said virtual elements being capable of interacting with other of said virtual elements within the virtual environment (*col 8, lines 24-26, "Perpetual universe server 202 may also track the movement of all dynamic objects, digenomes, and avatars in the perpetual universe", col 8, line 16, "digenomes competitions" and col 8, line 67 – col 9, line 1, "to support battles between digenomes" where battles can include interacting*);

user controls for enabling a user to interact with at least one of said virtual elements within said virtual environment (*col 8, lines 48-50, "the end users can view and interact with the gaming environment in the context of their online persona and/or in the context of their digenomes" which involves user controls*);

wherein the plurality of virtual elements comprise at least two virtual characters (*col 8, line 67 – col 9, line 1, "to support battles between digenomes" where these battles can be between at least two virtual characters*) each comprising a behavior state, an emotion state and a learning state, and wherein said behavior state (*col 2, lines 3-5, "evolutionary computation techniques in connection with the behavior and capabilities of the game character"*), said emotion state (*col 2, line 8, "emotional characteristics"*) and said learning state (*col 2, line 8, "cognitive characteristics" and col 2, lines 10-12, "The digenetics of a game character can also influence levels of expertise, training, and physical and mental prowess"*) are capable of changing (*col 9, lines 24-26, "Rather, the gaming environment 208 and/or the game characters are preferably designed to evolve and change"*) in response to (i) interaction with other virtual elements within the virtual environment (*col 13, lines 62-65, "During competition and training decisions, actions, movements, and responses of a digenome are preferably dictated by current game conditions, game parameters, and its traits, its current state of physical, emotional, cognitive, and performance development, and other factors"*), and/or (ii) commands from said user input controls (*col 3, lines 32-34, "a game character supported by system 100, whether user-controlled or computer-controlled"*);

wherein said virtual environment is configured so that additional virtual characters can be introduced into said virtual environment (*col 8, lines 14-15, "digenomes character birth, breeding, and gene therapy 214"*), with the additional virtual elements being capable of interacting with one another and the plurality of virtual elements (*col 21, lines 40-42, "the presence and characteristics of building and other obstructions; and data related to dynamic objects included in the game environment"*);

and further wherein the additional virtual characters are capable of being recognized by the virtual character previously existing within the virtual environment, with the additional virtual characters being capable of interacting with one another and the virtual character (*col 14, lines 30-33, "end users looking to create offspring digenomes ... This feature can simulate end user interest in the long-term role-playing aspect of the video game system" where this long-term role playing can include "digenomes competitions" and col 8, line 67 – col 9, line 1, "to support battles between digenomes" which involve interaction between characters new or old*).

Fogel does not explicitly teach the remaining claim limitations.

Matsuda teaches the claimed:

and further wherein each virtual character comprises a blackboard data structure which acts as a repository for selected pieces of data associated with that virtual character's behavior state, emotion state and learning state and which permits other virtual characters to access those selected pieces of data associated with the virtual character's behavior state, emotion state, and

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learning state whereby to enrich the level of interaction between the characters (col 7, lines 12-21, " the speech function of the object management node 102 enables virtual living objects to have a conversation between them in the virtual community space, the thinking and remembering functions enable to raise a virtual living object in the virtual community space by education and training, and the learning function enables a virtual living object to send itself an electronic mail. Also the object management node 102 permits each virtual living object to real-time interact, exchange greetings, talk, have a fight and fall in love, with the other in the virtual community space". In this instance, the system can implemented the thinking, learning, and remembering functions through a blackboard data structure where the characters access the certain data through conversation).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine Fogel with Matsuda in order to make the interaction between the virtual characters more interesting.

As per claim 3, Fogel teaches the claimed:

3. A system according to claim 8 wherein said virtual character further comprises a sensory capability for sensing other virtual elements within said virtual environment (col 10, lines 24, "model for the genetic structure of a digenomes character 300" and col 10, lines 40-41, "which may affect its decision making process; its visual acuity").

As per claim 4, Fogel teaches the claimed:

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4. A system according to claim 3 wherein said sensory capability is configured to sense the presence of other virtual elements within said virtual environment (*col 10, lines 40-41, "which may affect its decision making process; its visual acuity", col 8, line 16, "digenomes competitions" and col 8, line 67 – col 9, line 1, "to support battles between digenomes"*).

As per claim 5, Fogel teaches the claimed:

5. A system according to claim 3 wherein said sensory capability is configured to sense the motion of other virtual elements within said virtual environment (*col 22, lines 37-40, "Solomon engine 206 is capable of processing and determining each individual move, decision, action, reaction, and response of the digenomes" where this information can be communicated to the sensory capability of a given virtual character*).

As per claim 6, Fogel teaches the claimed:

6. A system according to claim 4 wherein said sensory capability is configured to sense a characteristic of other virtual elements within said virtual environment (*col 21, line 21, "Competition process 700 may also retrieve game data" and col 21, lines 40-42, "the presence and characteristics of building and other obstructions; and data related to dynamic objects included in the game environment"*).

2. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fogel et al. (US Patent 7,025,675 B2) in view of Ibe et al. (US Patent 7,098,906).

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As per claim 9, the reasons and rationale for the rejection of claim 1 is incorporated herein.

Fogel teaches the claimed:

wherein the virtual world further comprises an audio-visual component (*col 23, line 3, "animation data" and col 23, line 5, "sound effects"*) for displaying audio and visual manifestations of the virtual world to the user (*col 7, lines 11-14, "Viewer 122 may project the end user's avatar into the gaming environment as the end user moves about and watches events as they occur"*);

Fogel does not explicitly teach the remaining claim limitations.

Ibe teaches the claimed:

wherein the audio-visual component comprises an animation engine for controlling the animated display of the virtual world and an audio engine for controlling audio output for the virtual world

and further wherein the audio-visual component is configured such that the audio engine may control the animation engine.

*(in the abstract, "The level extracting section extracts a level of a spectrum over a predetermined frequency range from a signal of input sound. The map information processing section processes the form (height, color, shape) of an object (a building, a cloud in the background, or the like) ... into map information dynamically changed in cooperation with the spectrum extracted by the level extracting section". In this instance, the animation is changed through changing the color and shape of objects on the screen according to a sound input);*



It would have been obvious to one of ordinary skill in the art at the time of invention to combine Fogel with Ibe in order to make the output more interesting and entertaining to the user (col 1, lines 40-44).

As per claim 10, the reasons and rationale for the rejection of claim 1 is incorporated herein in regards to the claimed "virtual character comprising a behavior state, an emotional state and a learning state". Fogel teaches the claimed:

10. The system in wherein the audio-visual component comprises at least one camera for determining a selected view of the virtual world, and further wherein the camera comprises a virtual character comprising a behavior state, an emotion state and a learning state, and wherein said behavior state, said emotion state and said learning state of the camera are capable of changing in response to (i) interaction with other virtual elements within the virtual environment, and/or (ii) commands from said user input controls (*col 7, lines 20-21, "viewer 122 may support various "camera" angles and perspectives" and col 7, lines 11-14, "Viewer 122 may project the end user's avatar into the gaming environment as the end user moves and watches events as they occur"*).

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel F. Hajnik whose telephone number is (571) 272-7642. The examiner can normally be reached on Mon-Fri (8:30A-5:00P).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka J. Chauhan can be reached on (571) 272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*D.R.*

DFH

*Ulka Chauhan*  
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SUPERVISORY PATENT EXAMINER